SIEMENS

ARCADIS Varic/Orbic

[redacted] SP

Update Instructions SP003/06/S

ARCADIS Varic / Orbic, SW Update VB13C

Safety Update

Urgent?	☑	Yes	☐	No
Time period	within 3 months			
Intranet download available?	☐	Yes	☑	No
Remote update handling feasible?	☐	Yes without CSE (Category 2)	☐	Yes with CSE (Category 1/3) ☑ No
Materials for logistic update required?	☑	Yes	☐	No
Materials free of charge?	☑	Yes	☐	No
			☐	No, but credit at return
Return of parts?	☐	Yes	☑	No
Estimated completion time	3,5	hour(s)		Number of CSE's: 1
Customer application training?	☐	Yes	☑	No

Criteria for system to be affected

Criteria	Value
System material number	08080017 and 08081080
System software version	< VB13C
Component material number	n.a.
System serial numbers	See table on next pages

Chg. Ref. No.: 168146
Name: Arnold
Dept.: CS PS SP

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Print No.: SPR2-310.896.05.01.02
Replaces: n.a.

English
Doc. Gen. Date: 05.06

Document revision level

The document corresponds to the version/revision level effective at the time of system delivery. Revisions to hardcopy documentation are not automatically distributed.

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General Information

Systems/products affected

ARCADIS Varic from serial no. 10001 to 10505

ARCADIS Orbic from serial no. 20001 to 20206, 20208 and 20209

Reason for the update

Bug fixes:

- ➪ Elimination of the software bug in the correct version and rearrange function. (UI SP030/05/S)
- ➪ Improvement of the software stability.

Function improvements:

- ➪ Image quality improvements.
- ➪ Short radiation releases (toe tapping) now leads to correct image integrations.
- ➪ Last Scene hold function improved.
- ➪ Storage of subtraction scenes as subtracted images.
- ➪ Roadmap after subtraction possible.
- ➪ Direct image transfer from Reference task card to Filming task card.

New functions:

- ➪ “Hibernate” Mode implemented (faster power off / power on).
- ➪ Autoloop (option) available.
- ➪ Display of air kerma values possible. (national regulations)
- ➪ Automatic transfer of patient images to the network.
- ➪ 3D Option, Image fusion function.

See also: Operator Manual, important additional information VB13C.

Prerequisites

- ARCADIS Varic:

  The software update VB11A (see Update instructions SP024/04/P) should be performed before you start with the software update VB13C.

NOTE

Incompatibility of backup parameters stored with software version VB10C.

It is not possible to restore the backup parameters stored with software version VB10C.

If software version VB10C is still installed and software update VB11 A was not performed on the system, read out the configuration parameters and start with software update VB13C. Perform the configuration of the system manually. ARCADIS Orbic systems with software version VB10C and installed 3D reconstruction need to be calibrated.

- Make sure that the service password is still valid.
  - ➪ If it has expired, get a new one before going on site.
- The customer is responsible for archiving patient images prior to the update.

Special tools / documents

n.a.

Material information

Contents of the update kit

Update kit (Material no.: see Ordering Information table) contains the following parts:

Item	Quantity	Material No.	Name
1	1	08079746	Update VB13C including software kit VB13C, line voltage label, update instructions SPR2-310.896.05.01.
2	1	SPR2-310.623.01.	Operators Manual in the country-specific language.

Ordering information

One of the following update kits has to be ordered from CSML (SAP Distribution Channel, plant 2050/6050) or BU Logistics (factory BU) (only with an order via BU Logistics) in the country-specific language:

System	Material No.	Language
ARCADIS Varic	10142705	German
	10142706	English
	10142707	French
	10142708	Spanish
	10142709	Swedish
	10142710	Italian
	10142711	Danish
	10142712	Dutch
	10142713	Chinese
	10142714	Japanese
	10142715	Hungarian
	10142716	Czech
	10142717	Slovak
	10142718	Estonian
	10142719	Polish
	10142720	Finnish
	10142721	Greek

System	Material No.	Language
ARCADIS Orbic	10142740	German
	10142741	English
	10142742	French
	10142743	Spanish
	10142744	Swedish
	10142745	Italian
	10142746	Greek
	10142747	Chinese
	10142748	Japanese
	10142749	Hungarian
	10142750	Czech
	10142751	Estonian
	10142752	Polish
	10142753	Dutch
	10142754	Russian

Return of parts

n.a.

General Safety Information

General safety information (in existing documents)

⚠WARNING

Risk of death, injury or material damage.

Non-compliance can lead to death, injury or material damage

Please note:

- **The product-specific safety information in these instructions,**
- **The general safety information in TD00-000.860.01... and**
- **The safety information in accordance with ARTD Part 2.**

General electrical safety information

⚠WARNING

Electrical safety!

Non-compliance can lead to severe injury or even death, as well as material damage.

- **Parts under electrical voltage are accessible when the covers are open. To avoid danger, disconnect the system from the power supply before opening the covers. Disconnect the power plug.**
- **If an interruptible power supply (UPS) is installed in the system, the voltage output of the UPS must also be deenergized or the voltage output plug must be disconnected.**
- **If work steps must be performed using electrical power, the general safety information according to TD00-000.860.01... must be observed.**

⚠CAUTION

Electrical voltage!

Non-compliance can lead to material damage.

- **ESD protection guidelines must be observed during the update.**

Radiation safety information

⚠WARNING

X-ray radiation!

Noncompliance can lead to illness, irreversible damage to body cells and genotype, severe injury and even death.

During work on the system in which radiation must be released, the radiation protection directives and the rules for radiation protection according to ARTD-002.731.02... must be complied with.

Please note:

- ➪ **Use available radiation protection devices.**
- ➪ **Wear radiation protection clothing (lead apron).**
- ➪ **Stay as far away as possible from the radiation source.**
- ➪ **Release radiation only if necessary.**
- ➪ **Set the radiation activity as low as possible. (low kV and mA values, short radiation time)**
- ➪ **Release radiation for as short a time as possible.**
- ➪ **Checks requiring the release of radiation are identified by the radiation warning symbol shown on the left.**

Safety information regarding infection with pathogens

⚠WARNING

Danger of infection with pathogens

Noncompliance can lead to death or physical injury.

- ➪ **This product is released for operation in operating rooms and can be contaminated with infected blood or other body secretions.**
- ➪ **Avoid all contact with blood or other body secretions!**
- ➪ **Comply strictly with the preventive measures against infectious diseases specified in ARTD-002.731.37..!**

Mechanical safety information

⚠CAUTION

Risk of being burned by hot parts or components!

Removing the covers exposes parts or components (e.g. power components, heat sinks, solenoid brakes) that may exhibit temperatures of up to 50 degrees C when in operation.

If safety guidelines are not observed, minor to more severe burns, especially on the hands, can occur.

- ➪ **To avoid burns, switch the system off prior to touching parts or components and allow at least 5 minutes for cooling.**

⚠CAUTION

Danger of injury on mechanical parts!

When the covers are removed, it is possible to come into contact with parts, such as flat plugs, threaded bolts, cut off cable ties or edges of components, that can, if you are not careful, cause injury from crushing, cutting or grazing of the skin, especially on the hands.

If safety guidelines not observed, minor to more severe injury, especially to the hands, can occur.

- ➪ **Perform the corresponding work with special care and attentiveness.**
- ➪ **Wear work gloves if necessary.**

Notes on the protective conductor resistance test

Observe the statements in the safety engineering rules for installation and maintenance (ARTD-002.731.17...).

The protective conductor resistance must be measured after every intervention in the system.

Documentation of the measured values is normally required only during periodic safety checks.

If parts / components that can significantly influence the protective conductor resistance are replaced (e.g. replacement of power cable, power-up module, or multicore connection cables, which also create the protective conductor connection between parts of the system (e.g. monitor cable or C-arm cable)), or if protective conductor connections have been repaired, then the protective conductor resistance must be measured, documented and assessed.

NOTE

Evaluate the results by comparing the first measured values with the corresponding values of preceding maintenance procedures or safety checks.

A sudden and unexpected increase of the measured values may indicate a safety-relevant defect - even if the limit value of 0.2 Ohms is not exceeded (Protective conductor or contacts).

The measurement must be made according to DIN VDE 0751, Part 1 (see ARTD Part 2). Accordingly, the protective conductor resistance to all accessible conductive parts of the system must be measured.

Make sure that control cables or data cables between the components of the system are not mistaken for a protective conductor connection.

During the measurement, the mains cable and additional connection cables that also create the protective conductor connection between parts of the system (e.g. monitor cable between basic unit and monitor cart) must be moved section by section to detect broken conductors.

The protective conductor resistance must not exceed 0.2 Ohms.

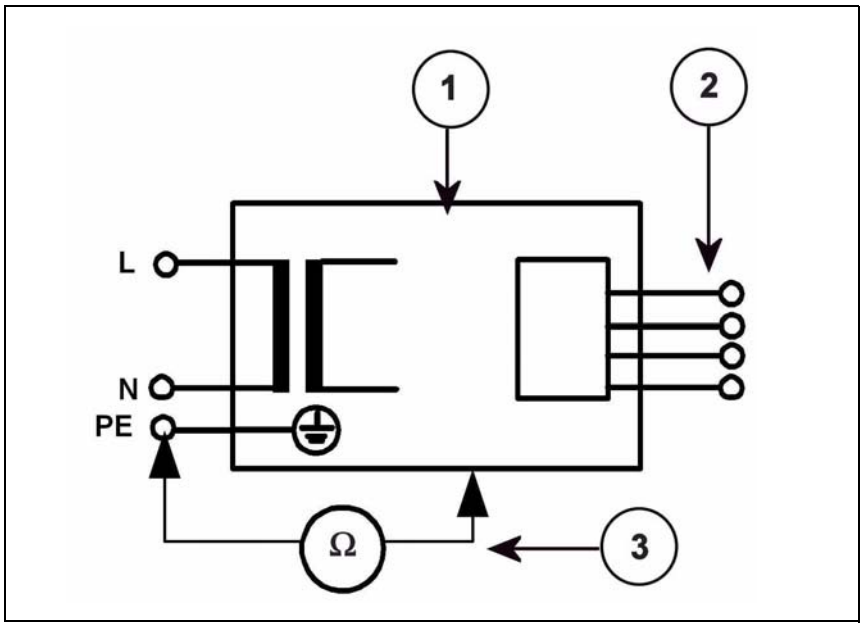

Fig. 1: Measuring circuit for measuring the protective conductor resistance for units that are disconnected from power, in compliance with DIN VDE 0751-1/2001-10, Fig. C2.

Pos. 1 = System

Pos. 2 = Application part type B (if available)

Pos. 3 = Measurement setup (integrated into measuring device)

General information

Passwords

Required passwords are not included in this document. You will find them in the CS Knowledge Base on the intranet or you can obtain them from the relevant USC.

Service, shutdown, hibernation

⚠CAUTION

Switching the system off via hibernation (version VB13C and later) after service or before handover to the customer is not sufficient.

Various error messages can appear after the next system boot and configuration changes are not saved.

➪ **To ensure that the configuration changes are saved, a proper shutdown must be performed. Shut down the system via the upper monitor menu bar <Options>-<End Session>-<Shut Down System> and then press the "off" key on the monitor trolley.**

Handover to the customer

NOTE

Before the system is handed over to the customer, the system must be shut down via the menu bar <Options>-<End Session>-<Shut Down System>.

Switching the system off via hibernation (on/off button on the monitor trolley) is not sufficient.

Setting the K23 timer relay

NOTE

This section is valid only for

ARCADIS Varic from serial no. 10001 to serial no. 10316

and for

ARCADIS Orbic from serial no. 20001 to serial no. 20085.

If your system is not within the range of these serial numbers, skip this section.

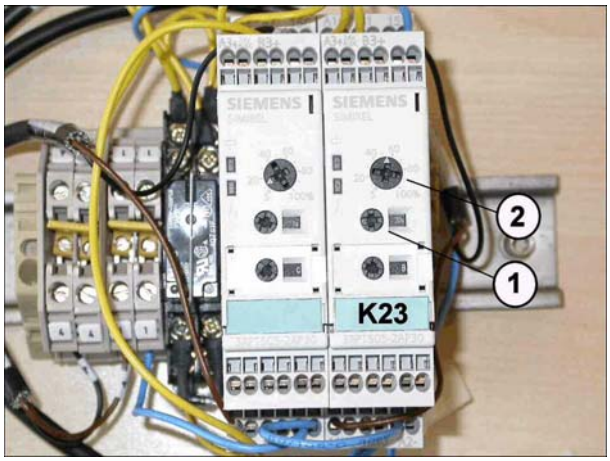

Fig. 2: Timer relay assembly

Pos. 1 Time setting coarse adjustment (sec)

Pos. 2 Time setting fine adjustment (%)

- Check the serial no. of the system.
  - ➪ Skip this section if your system is not within the range of the serial numbers.
- Open the middle and the bottom rear cover of the monitor trolley.
  - ➪ The On/Off assembly is visible.
  - ➪ The external timer relay assembly (Fig. 1) is also visible.

NOTE

If the timer relay assembly (Fig. 1) is not present on the system, it is possible that the first type of On / Off assembly was replaced during a service call with On / Off Assembly Version 2.

In that case, close the bottom rear cover and skip this section.

- Loosen the 2 fastening screws of the timer relay assembly (Fig. 1) to access adjustment screws 1 and 2 / Fig. 1.
- The K23 relay is identified by a small label “K23”.

- The K23 relay has to be set to a delay time of approx. 17 seconds.
  - ➪ Select “30” (seconds) with the coarse adjustment screw (1/ Fig. 1)
  - ➪ Set the fine adjustment screw (2 / Fig. 1) to “55” (%). The pointer of the adjustment screw should be positioned in the middle between the 50% and 60% marks.
  - ➪ Do not change the function setting of the timer relay (with the setting screw below setting screw 1 / Fig.1) The function setting of the timer relay must indicate “B”.
- Fasten the timer relay assembly back on to the monitor trolley.
- Close the bottom rear cover of the monitor trolley. Ensure a proper contact of the protective conductor connection.

Installation prerequisites

Monitors

- Make sure that both monitors are connected and switched on.

Local printer (if applicable)

- USB Printer (Sony): Make sure that the local printer is switched off and the USB connection is not connected to the imaging system PC.
- Parallel port printer (Codonics): Make sure that the local printer is switched on and connected to the imaging system PC.

USB

- Make sure that no USB memory stick is connected to the imaging system PC.
  ➪ This would result in failure to detect the drive.

NOTE	**Be aware that the dongle is not a memory stick.**

Network

- The system must be physically disconnected from the network during software installation.

Function test

- Check the functional status of the system.

Saving the patient images

Patient images that are not saved will be lost when the SW is downloaded.

- Send any patient images in the system to the archive or burn them to a CD.

Entering and saving data

Service key

- Record the service key .....
  - ➪ It can be found, for instance, in the system binder.

BIOS password

- Record the BIOS password.....
  - ➪ This is listed in the knowledge base password list.

Computer name

- Record the computer name.....
  - ➪ It can be found in the service software under Configuration/Local host/TCP IP LAN/Computer name.

Administrator logon

- Record the administrator name .....
  - ➪ This is listed in the knowledge base password list.
- Record the administrator password .....
  - ➪ This is listed in the knowledge base password list.

Notes on aborting software installation

NOTE	**Under no circumstances may the system be switched off during installation. If the system is switched off, follow the instructions below.**

Procedure when the installation has been aborted

- Press the “Reset" key(Fig. 3 / p. 19) on the monitor trolley using a pin-shaped object.

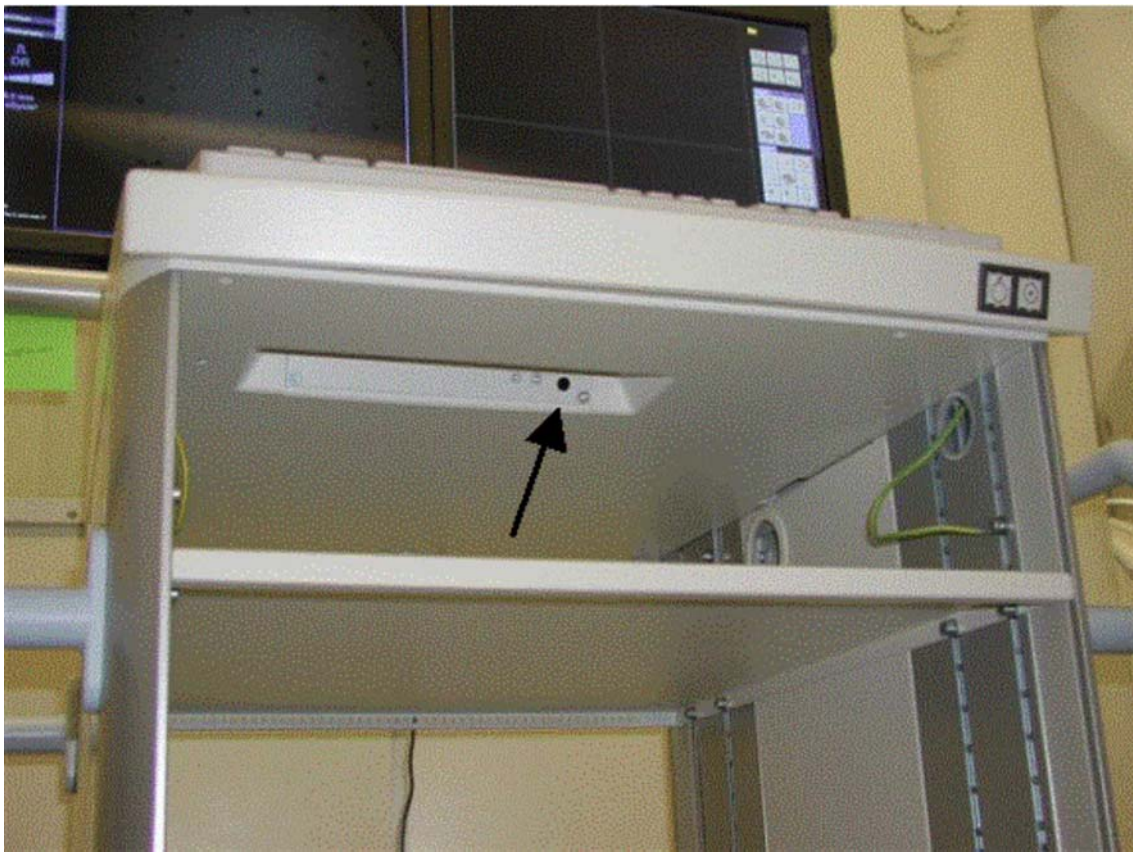

Fig. 3: BIOS reset key

- Switch the system back on using the main switch on the monitor trolley.
- Switch on the imaging system PC using the power button on the front side of the PC.
- Start again with “Software Installation VB13C”

Checking the names of the “user-defined examination sets”

NOTE

With software version VB13C, the name of default examination sets may not be included as a text string in the name of the “user-defined examination sets".

Restoring the “user-defined examination sets”, including the text string of the name from the default examination sets, can corrupt the examination set database.

Therefore, check the names of the “user-defined examination sets” before starting with software update VB13C.

The name of default examination sets (name is written in bold letters) does not cause any problems.

Opening the “Examination Set Configuration”

1. Switch on the system and wait until it has booted.
2. Select the <Options> menu and click the <Configuration...> submenu.
   ➪ The “Configuration panel” window is displayed.
3. Double-click the <Examination Set Config...> icon.
   ➪ The “Examination Set Configuration” window is displayed.

NOTE

In the upper line of the window, the “Ortho/Trauma”, “General”, “Cardiac”, “Vascular” and “Urology” tab cards are visible.

Depending on the configuration of the system, the “Urology” tab card may not be present.

Below, in the next field, the “virtual patient anatomy” graphic is visible.

In the third field, “Examination Set Pool”, all available examination sets are listed.

In the fourth field, “Active Examination Sets”, the active examination sets are listed.

In the last field of the window, the “Copy as”, “Delete”, “Edit”, “OK”, “Apply” and “Cancel” buttons are visible.

Selecting the available examination sets

1. After opening “Examination Set Configuration”, select the first tab card, “Ortho/Trauma”.

2. Check that no patient region is selected in the “virtual patient anatomy” graphic.
   ➪ If one of the patient regions is still selected, click outside (to the left or right of) the “virtual patient anatomy” graphic. This deselects any patient region.
   ➪ In the “Examination Set Pool” field, all available examination sets are listed.

NOTE

The name of default examination sets are written in bold letters.

Default examination sets cannot be renamed.

The names of “user-defined examination sets” are written in normal letters (not bold).

“User-defined examination sets” can be renamed.

Checking the name of the “user-defined examination sets”

1. Read the names of the “user-defined examination sets” (written in normal letters), displayed in the “Examination set pool” field.
   ➪ If any name includes the following listed text string in any position of the name, this “user-defined examination set” needs to be renamed.

Tab. 1 Text strings prohibited in user-defined examination sets

Prohibited text strings:	Allowed text strings:
“Standard”	“Std” or “_Standard”
“Reduced Dose”	“Red Dose” or “Reduced_Dose”
“Increased Dose”	“Incr Dose” or “Increased_Dose”
“SERVICE_Res_HC2_LOW”	“SERV_Res_HC2_LOW”
“SERVICE_Res_HC2_MID”	“SERV_Res_HC2_MID”
“SERVICE_Res_HC2_HIGH”	“SERV_Res_HC2_HIGH”
“SERVICE_Q_HC1_LOW”	“SERV_Q_HC1_LOW”
“SERVICE_Q_HC2_LOW”	“SERV_Q_HC2_LOW”
“SERVICE_Q_HC1_MID”	“SERV_Q_HC1_MID”
“SERVICE_Q_HC2_MID”	“SERV_Q_HC2_MID”
“SERVICE_Q_HC1_HIGH”	“SERV_Q_HC1_HIGH”
“SERVICE_Q_HC2_HIGH”	“SERV_Q_HC2_HIGH”

Renaming “user-defined exam sets”

1. In the “Examination Set Pool” field, move the mouse cursor over the name of the user-defined examination set that needs to be renamed.
2. Click the right mouse button.
   ➪ A menu window is displayed.
3. Move the cursor to and click “Rename”.

NOTE	**If the“Rename” menu item is not displayed in the menu window, try to rename a default examination set.** **Default examination sets cannot be renamed.**

   ➪ The name of the “user-defined examination set” can be changed.

NOTE	**Do not use one of the prohibited text strings listed in (Tab. 1 / p. 21) in any position of the name.**

4. Enter the new name and press the <Enter> key on the keyboard.
   ➪ The “user-defined examination set” is renamed.
5. Click “Apply”.

Checking the other “user-defined examination sets”

1. After checking, and if necessary renaming, the “user-defined examination sets” in the“Ortho/Trauma” tab card without any selected body region, successively select each body region on the “virtual patient anatomy” graphic and check the stored “user-defined examination sets” for each region.
   ➪ If necessary, rename the “user-defined examination sets” that include one of the text strings listed in (Tab. 1 / p. 21) in the name.
2. After checking, and if necessary renaming, all of the “user-defined examination sets” in the “Ortho/Trauma” tab card, select the next tab card, “General”. First deselect and then successively select each body region on the “virtual patient anatomy” graphic and check all “user-defined examination sets”.
   ➪ If necessary, rename the “user-defined examination sets” that include one of the text strings listed in (Tab. 1 / p. 21) in the name.
3. Continue with the next tab card until all “user-defined examination sets” in all tab cards for each body region have been checked and, if necessary, renamed.

Check “Local Host” parameter

NOTE

Under <Service>-<Configuration>-<DICOM>-<Offline Devices>, deselect the “Archive Device” check box for the CD-RW drive.

NOTE

Under <Service>-<Configuration>, on the first page “List of Options”, the “System Management” option must be deactivated.

1. Switch the system on.
2. Open the local service.

Users

1. Click <Configuration>-<Users> and make sure the “Enable Autologin” check box is selected and “Random Password” is deselected.
2. Click <Save> or <Finish>.

Monitor Settings

1. Click <Monitor Type> and make sure that “Pseudo Color” is selected.
2. Click <Save> or <Finish>.

DICOM

1. Under <Service>, click <Configuration>-<DICOM>- <Offline Devices> and make sure the “Archive Device” check box for the CD-RW drive is deselected.
2. Click <Save> or <Finish>.

Backup

NOTE **A backup of the VB11A backup packages must be performed before software installation VB13C is started.**

NOTE **All network settings, including the static route, are a part of "SW-Settings02".**

NOTE **The monitor trolley and the basic unit must be connected. (Plug X10 is connected to socket X10.)**

1. Click <Home> and <Backup & Restore>.
2. Insert an empty CD-R into the CD drive.
3. Select "Command" and "Backup".
4. As the backup drive, select "(R) CD-R" in the "Drives" list field.
5. Perform a backup of the following packages:
   - ➪ SW-Settings 02
   - ➪ 3 D settings (only ARCADIS Orbic)
   - ➪ Exam sets
   - ➪ Security settings (Option)
6. Remove the CD-ROM from the CD drive, write the software version VB11A, the system name, system serial number, date and time on the CD-ROM.

Downloading the main system software

NOTE

For the upgrade to VB13C, download the main system software prior to the system software installation.

1. Log into the local service and click “Main System”.
2. Select the correct product and click <Next>.
3. Under the <Download> menu, click <C-Arm>.
4. Insert the “Main System” software CD into the CD drive.
5. Select the CD drive (R).
6. Under “Directories & files” select “SMC_Plus_VD00A” and click “compare”.
   ➪ The file version is displayed under <New version>, and the recommended action (e. g. update necessary) is displayed under <Status/Action>.
7. Click <Download>.
   ➪ A progress bar indicates the progress of the download.
8. When the download is completed, click <Finish> and remove the CD from the CD drive.

NOTE

After a software upgrade and a reboot of the main system, various error messages can appear.

9. Disconnect the main system from the monitor trolley.
   ➪ Confirm the error messages.

Software installation VB13C with cloning

⚠CAUTION

You can destroy the Examination Set database if you open the Examination Set Configuration window and edit examination sets before all work steps described in this chapter, “Software Update”, are complete.

If this happens, the software installation must be repeated!

➪ **DO NOT open the Examination Set Configuration window before all work step described in this chapter, “Software Update”, have been performed.**

Installation prerequisites

- Disconnect the USB local printer (SONY), if present, from the imaging system PC
- Disconnect any network connection from the monitor trolley.
- Ensure that no USB memory stick is connected to the imaging system PC.
- Ensure that both monitors are connected and switched on.
- Ensure that a backup of the current system configuration is on hand.
- Ensure that all patients are archived.
- Ensure that the main system is disconnected from the monitor trolley.

Installation preparations

1. Switch the system on if it is switched off.
2. Shut down the system via the menu bar <Options>-<End Session> <Shutdown System> .
3. Immediately after this, switch off the system by pressing the power off button on the monitor trolley.
   ➪ Wait until the shutdown is finished.

Image file installation

1. Switch on the system using the monitor trolley power-on button, and as soon text is displayed on the left monitor, press the “F2” key on the keyboard.
   ➪ The BIOS login window is displayed.

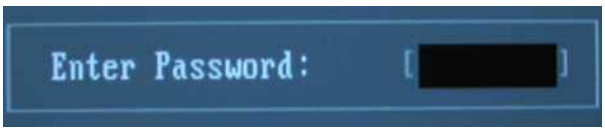

Fig. 4: Bios_PW

2. Enter the BIOS password and confirm it by pressing the “Enter” key.

3. Insert the “Image system” software CD into the CD drive.
   ➪ Insert CD 1 in the CD-R drive
4. Press the “F9” key on the keyboard.
   ➪ “Load default configuration now?” is displayed.
5. Confirm the “Yes” button by pressing the “Enter” key .
6. Press the “ESC” key on the keyboard.
7. Confirm the text line “Save Changes & Exit” by pressing the “Enter” key.
   ➪ The message appears: “Save configuration changes and exit now?”
8. Confirm the <Yes> button by pressing the “Enter” key.
   ➪ The system boots and installs the BIOS settings. This takes a while.
   ➪ The message “System Ready for Image Installation” - “Press any key to continue...” is displayed.
9. Start the image installation by pressing the “Enter” key.
10. After a few seconds, a license agreement window is displayed.

    Confirm the <OK> button by pressing the “Enter” key

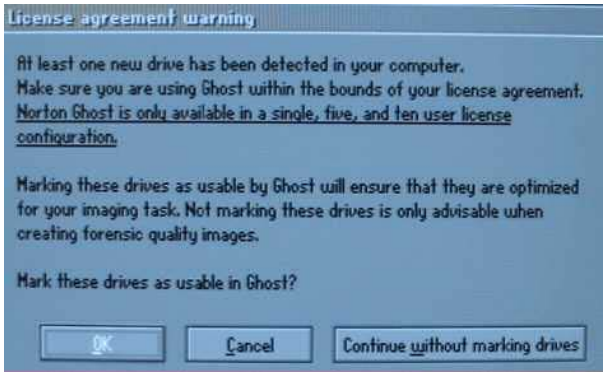
License agreement warning
At least one new drive has been detected in your computer.
Make sure you are using Ghost within the bounds of your license agreement.
Norton Ghost is only available in a single, five, and ten user license configuration.
Marking these drives as usable by Ghost will ensure that they are optimized for your imaging task. Not marking these drives is only advisable when creating forensic quality images.
Mark these drives as usable in Ghost?
OK
Cancel
Continue without marking drives

Fig. 5: Ghost_License

➪ The image installation starts.

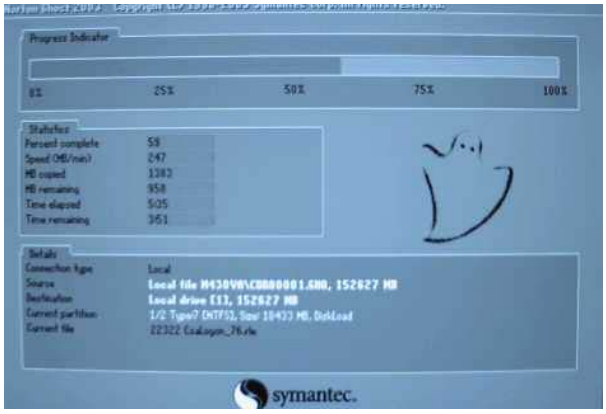

Fig. 6: ghost_progress

11. When the image installation reaches approx. 50%, the message “Span Volume (1) Done (xxx)” is displayed.

    Open the CD drive tray and remove CD 1 from the CD drive.

    Insert CD 2 in the CD drive and close the CD drive tray.

    Press the “Enter” key to continue the image installation.

12. After successful installation of the image files, the system reboots automatically.

    ➪ After the reboot, the Windows XP Setup window is displayed on the left monitor.

Installation of Windows XP and syngo application

NOTE

The Windows XP Professional installation and the syngo application software installation is started automatically after the image installation and cannot be performed as single installation process.

1. When a window appears with “Computer Name and Administrator”, enter the previously noted computer name in the “Computer name” field.

NOTE

DO NOT enter any password into the “Administrator password” fields!

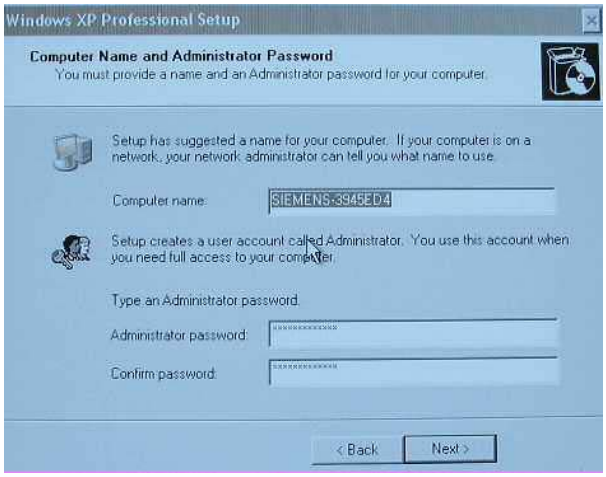
Windows XP Professional Setup
Computer Name and Administrator Password
You must provide a name and an Administrator password for your computer.
Setup has suggested a name for your computer. If your computer is on a network, your network administrator can tell you what name to use.
Computer name:
SIEMENS-3945ED4
Setup creates a user account called Administrator. You use this account when you need full access to your computer.
Type an Administrator password.
Administrator password:
Confirm password:
< Back
Next >

Fig. 7: compute_name

2. Click the <Next> button in the window that appears.
   - ➪ Windows XP Professional installation begins.
   - ➪ After Windows XP Professional is successfully installed, the system reboots automatically.
   - ➪ Some installation scripts will be started automatically.
   - ➪ After a second reboot, the login dialog window is displayed.

Fig. 8: Login_corner

NOTE

If the login dialog window is displayed off center, the monitor resolution was not correctly detected on the TFT displays.

As a workaround, grab the login window with the mouse and move it until it can be read.

Fig. 9: meduser

In the login dialog, enter the user name and the password.

➪ User name = meduser

NOTE	**Regardless of the keyboard, the keyboard layout is English. The @ sign can be selected by pressing the <Shift> + <2> keys simultaneously.**

➪ Password = @med@User... ("..." = the last 3 digits of the computer name)

NOTE	**If you enter an incorrect password or user name, it takes about 15 minutes before a new entry of the password and computer name is possible.**

3. Click <OK>.
   ➪ Auto configuration starts.
   ➪ Wait for the Explorer window "Please enter license" (see next section). Continue with the "Local Service Configuration" section.
4. Remove the installation CD from the drive.

Local service configuration

Service license

Start Up Check - Microsoft Internet Explorer provided by Siemens AG Medical Solutions
File Edit View Favorites Tools Help
Back Search Favorites Media
Address C:\ASPIA\log\syngo_StartUpCheck.html
Go Links
Please enter license
Before you can start working with syngo, you need to enter a valid license key in the Local Service UI.
Click here to start the Local Service Configuration.
My Computer

Fig. 10: Starting the Local Service Configuration

NOTE

If no backup is on hand, configure the system according to the configuration guide.

1. Select “Click here to start the Local Service Configuration”.
2. Enter the service key in the service window that appears.
3. Select <Set as default>.
4. Confirm with <OK>.
   ➪ The <Home> menu window of the local service is displayed.

Restore

NOTE

Do not restore the “Main System” and “Aspia Settings” settings when upgrading software VB11A to VB13C.

NOTE	**After each backup package is restored successfully, the message "Press OK to start shutdown or select Cancel" appears.** **DO NOT select <OK> if all backup packages were not restored!** **Select <Cancel> if all backup packages were not restored.** **Only after the last backup package is restored, select <OK> to start the shutdown of the system.**

1. Insert the backup CD (based on VB11A) into the drive.
2. Under <Service>, click <Backup & Restore>.
3. Under "Command", select "Restore" and select "(R) CD-R" under "Drives".

SW-Settings 02

1. Under "Archive", select the correct (newest) backup file of "SW-Settings 02"
2. Highlight all the files in "Groups" (e. g. by pressing the "Ctrl" key and clicking the individual groups).
3. Click <Go>.
4. Click <Cancel> when the window "Press OK to start shutdown or select Cancel" appears.

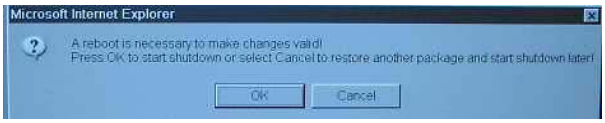
Microsoft Internet Explorer
A reboot is necessary to make changes valid!
Press OK to start shutdown or select Cancel to restore another package and start shutdown later!
OK
Cancel

Fig. 11: OK_Cancel

ASPIA settings

NOTE	**DO NOT restore the "Aspia Settings"!**

3D settings (only for ARCADIS Orbic)

1. Option for Orbic: Under "Archive", select the correct backup file of 3D Reconstruction settings.
2. Click <Go>.
3. Click <Cancel> when the window "Press OK to start shutdown or select Cancel" appears.

Exam sets

NOTE	**DO NOT restore the "Exam Sets" at this point. The exam set restore procedure is described later in the "Manual configuration of the VB13C parameters" section.**

Security settings

1. Under “Archive”, select the correct backup file of “Security-Settings”.
2. Click <Go>.
3. Click **<OK>** when the window “Press OK to start shutdown or select Cancel” appears.
4. Remove the backup CD from the CD drive.
5. Continue with “Starting the shutdown and activating the restored values”.
   ➪ If no automatic shutdown and restart occur, shut down and restart the system manually. See the following note.

NOTE	**If you already closed the message box with “Cancel”, then restore the “Security-Settings” again and click “OK” for the required shut-down.**

Main system

NOTE	**DO NOT restore the “Main System” settings at this point. The main system is still disconnected from the monitor trolley.**

Shutdown and activating the restored values

1. Wait until the patient database creation is complete (approx. 15 min.).
   ➪ The syngo counter screen appears.
   ➪ When this has completed, a window appears with the following text: "Warning:database creation in progress. This will last a long time. Wait until the patient registration dialog is open! Press any key to continue...”
2. Wait about 5 minutes, then select the window and close it by pressing the <Enter> key.
3. Wait approx. 20 minutes until the patient registration dialog or the patient browser is displayed.

Manual configuration of new VB 13C parameters and restore of “User Defined Exam Sets”

Backup and Restore of the ASPIA Settings (part 1)

NOTE

Backup and restore of the ASPIA settings must be performed before and after the user-defined examination sets are restored. This will repair the inconsistency in the database.

This section (part 1) describes the backup and restore of the ASPIA settings before the restore of the “user-defined exam sets”.

NOTE

Only a backup of the ASPIA settings must be performed.

Only a restore of the “Service” ASPIA settings must be performed.

1. The main system is still disconnected from the monitor trolley.
2. Open the local service.
3. Insert a new and empty CD-R into the CD drive.

NOTE

Use a new and empty CD-R.

DO NOT use the previously used Backup CD-R stored with software version VB11!

4. Under <Service>, click <Backup & Restore>.
5. Under “Command”, select “Backup”and select (R) CD-R under “Drives”.
6. Under “Packages” select “ASPIA Settings” and click <Go>
   ➪ Wait until the backup has finished and the CD drive tray opens.
7. Leave the CD-R in the CD drive tray and close the tray.
8. Under “Command”, select “Restore”and select (R) CD-R under “Drives”.
9. Under “Archive”, select the correct backup file of “ASPIA Settings”.
10. Highlight only “Service” in “Groups”.
11. Click <Go>.
    ➪ The “Service” ASPIA settings will be restored.
12. Click <Cancel> when the following window appears: “Press OK to start shutdown or select Cancel”.
13. Remove the Backup CD-R from drive R, write “Backup database repair” on the CD-R.
14. Click <Home>.

Restore “User Defined Exam Sets”

1. Insert the backup CD-R (based on VB11A, including the backup of the previously checked user-defined examination sets) into the CD drive.
2. Under <Service>, click <Backup & Restore>.
3. Under “Command”, select “Restore” and select “(R) CD-R” under “Drives”.
4. Under “Archive”, select the latest backup file of “Exam Sets”.
5. Under “Groups”, highlight “User Defined_ExamSets”.

NOTE	**DO NOT highlight (select and restore) the “Default exam sets”!**

6. Click <Go>
   ➪ The “Exam sets” window is displayed.
7. Select all exam sets in the ”ExamSets in backup package” window and click “Import” to load the exam sets into the “Installed ExamSets” window.
8. Click <Go>
9. Click <Cancel> when the following window appears: “Press OK to start shutdown or select Cancel”.
10. Click <Home>.

Backup and Restore of the ASPIA Settings (part 2)

NOTE	**Backup and restore of the ASPIA settings must be performed before and after the user-defined examination sets are restored. This will repair the inconsistency in the database.** **This section (part 2) describes the backup and restore of the ASPIA settings before the restore of the “user-defined exam sets”.**

NOTE	**Only a backup of the ASPIA settings must be performed.** **Only a restore of the “Service” ASPIA settings must be performed.**

1. Insert the “Backup database repair” CD-R into the CD drive.
2. Under <Service>, click <Backup & Restore>.
3. Under “Command”, select “Backup”and select (R) CD-R under “Drives”.
4. Under “Packages” select “ASPIA Settings” and click <Go>
   ➪ Wait until the backup has finished and the CD drive tray opens.
5. Under “Command”, select “Restore”and select (R) CD-R under “Drives”.
6. Under “Archive”, select the newest burned backup file of “ASPIA Settings”.
7. Highlight only “Service” in “Groups”.
8. Click <Go>.
   ➪ The “Service” ASPIA settings will be restored.

9. Click <Cancel> when the following window appears: “Press OK to start shutdown or select Cancel”.
10. Remove the “Backup database repair” CD-R from drive R.
11. Click <Home>.

Activating the ASPIA settings

Go through the service menu

1. Under <Service>, click <Configuration>.
2. Deselect the “System Management” option.
3. Click <Next> or “>” until all groups are highlighted.
4. After all groups are highlighted, click <Finish>.

Parameter for the imaging system

Valid Mainsystem

1. Click <Valid Mainsystem>.
2. Enter the system serial number.
3. Click <Save>.

Hardcopy configuration

1. Click <Hardcopy Configuration>.
2. Check the box to enable the “Hardcopy button sends image to filming task card” function.
3. Click <Save>.
4. Click <Home>.

New parameters for the main system

ARCADIS Varic, Orbic

1. Connect the main system to the monitor trolley.
   ⇨ Confirm error messages by clicking <OK>.

NOTE	**Confirm all error messages by clicking <OK> in the message boxes.**

Air kerma

1. Under <Service>, click <Main System> and <Next>.
2. Under <Adjustment>, click <DAP / Air Kerma>.
3. Click “>”.
4. Click “>” to go to the <Air Kerma> page.

5. Click <Default> and <Save>.
6. Click <Home>.

Country-specific keyboard layout and user interface

1. Select <Options>-<Configuration> on the upper monitor task bar.
2. Double-click “Regional and Language Options”.
3. Select “Regional Options”.
4. Select the language under “Standards and formats”.
   ➪ The following languages can be selected: German (Germany), French (France), Spanish (Spain) and English (United States).
5. Under “Location”, select your corresponding location.
6. Click <Apply>.
7. Select “Languages” and click <Detail>.
   ➪ This is where the keyboard language is set.
8. Under “Installed services”, select the “Add” button.
   ➪ The following is displayed: “Add input language”.
9. Select the desired language.
   ➪ The following languages can be selected for the keyboard: German (Germany) or English (United States).
10. Click <OK>.
    ➪ The keyboard language is displayed.
11. Under “Default input language”, select the desired language from the drop-down menu.
12. Click <Apply>.
13. Click <OK>.
14. Click <OK>.
    ➪ The following is displayed:
    “The regional settings have been changed.
    Therefore a restart of the application is necessary.
    Do you want to restart the application now?”
15. Click <OK>.
    ➪ This will apply the settings and the system restarts.

Image text configuration

1. In the syngo menu bar, select <Options>-<Configuration>.
2. Double-click “Image text editor”.
3. Under “View name” (Basisformat), select “XA Image”.
   - Deselect software version
     ➪ Software version = ☐
4. Click <Apply>.
5. Under “View name”, select “ARCADISAcqView”.
6. Click “Customized text” (“Ausgewählte Texte”).
   - Deselect “Image Date”, “Image Time” and “Image Number”.
     ➪ “Image Date” = ☐
     ➪ “Image Time” = ☐
     ➪ “Image Number” = ☐
7. Click <Apply>.
8. Click <OK> and close the Configuration panel.

Quick Guide for system operation

1. In the "Service" menu, click <Configuration>.
2. Select “help update”
3. Place the “Quick Reference Guide” into the CD drive.

NOTE

The “Quick Reference Guide” was included in the VB11A upgrade kit for ARCADIS Varic and Orbic. Check the monitor trolley service tray for the Quick Guide CD.

4. Select the path and file(s) under “Directories and file”.
5. Click <Save> and remove the CD from the CD drive.

Update of the fastView software

1. Insert the “fastView@SP VA00A” CD-ROM into the CD drive.
2. In the local service menu, click <Utilities>.
3. Select “Escape to OS” in the <Source> list field.
4. Select “NT Command Interpreter” in the <Command:> line.
5. Enter “cmd.exe” in the <Parameters:> line and press the <Enter> key on the keyboard.
6. Enter “R: & runupdate” in the <Parameters:> line and press the <Enter> key on the keyboard.

NOTE

Enter the command exactly as printed:
“R:”<space key>”&”<space key>”runupdate”
and press the <Enter> key on the keyboard.

7. Wait until the message “**** ASPIA successfully updated ****” is displayed.
   ➪ The scroll bar slider must move down to make the message visible.
8. Click <Home> in the service menu and remove the CD from the DVD drive.

NOTE

If the fastView software was successfully updated and the “R: & runupdate” command is repeated, the error message
“**Error: failed to update fastView! ****”**
is displayed.
In that case, ignore the error message.

NOTE

A shutdown and reboot of the ASPIA PC is not necessary.

Test images

- Test images are automatically installed during software installation.
  - ➪ The “Service Patient” and corresponding images are shown only when the “Service menu” is opened and the log-in has been performed.

General information

NOTE

Perform the steps in this chapter only if a local printer is connected to the system (LPT1 port or USB port).

NOTE

Local printer, PostScript printer

These printer types are not approved for diagnostic purposes.

Notify the responsible personnel about this limitation.

NOTE

The installation workflow described for the local printers is based on the installation software currently delivered.

The installation procedure can vary if printer software was installed and needs to be updated or if the printer software version has changed. In such cases, please follow the installation workflow given for the printer software.

Sony UPD 72 (XR) local printer installation

Prerequisites

NOTE	**Do not connect the USB printer until you are instructed to in the course of the software installation process.**

1. Check the printer for paper.
   ➪ There should be about 10 sheets of paper in the printer paper tray.
2. Switch on the system and wait until it has booted.

Printer setup in local service

1. In the service menu, click <Configuration>.
2. In the window “List of system options”, the ☑ “Paper Printer” check box must be checked.
3. Click <Next>.

Paper Printer

1. Under the “External Devices” menu, click “Paper Printer”.
2. In “Available paper printer media formats”, mark “A4” and “8x10”. All other formats must be deselected.
3. Click <Save>.

Printer settings

1. Under the “External Devices” menu, click “Printer settings”.
   ➪ Make sure that the default value “black” is selected.

PS LUT files

1. Under “External Devices” menu, click “PS LUT files”.
2. Ensure that the “Use LUT for Postscript Printers” check box is checked.
3. Ensure that the “Use floating Zoom factors” check box is checked.
4. In the “PS LUT directory” list field, select “PrtLUT_Gamma_1_6”.
   ➪ The scroll bar slider must be moved down to make the “PrtLUT_**Gamma**_1_6” visible.
5. Click <Select>.
   ➪ The selected LUT appears in the “Current LUT” field.
6. Click <Save>.

NOTE	Do not shut down the system.

Log off as “meduser” and log on as “administrator”.

1. In the "Service" menu, click <Home> -<Utilities>.
   ➪ If the window displays with “A system reboot is necessary...” click <Cancel>.
2. Under “Source”, select “System”.
3. Select “Shut down Application” and click <Go>.
   ➪ The message box appears: “Application shutdown was selected. Are you sure?”
4. Click <OK>.
   ➪ The system shuts down to Windows XP level.
   ➪ The message “Shutdown of Application finished...” appears.
5. In the Windows menu bar, click <Start>-<Shut Down...>.
6. Select “Log off meduser”.
7. Click <OK>, then **immediately** press and hold the shift key on the keyboard.
   ➪ A “Log on” window appears.
   - Under “User name”, enter “administrator”.
   - Under “Password”, enter the administrator password (see SP password list).
8. Click <OK>.
   ➪ The system is now at the Windows XP level with administrator rights.

Sony UPD 72 printer driver installation and settings

Printer driver installation

1. In the Windows task bar, right-click <Start>, select and click <Explorer>.
   ➪ Windows Explorer opens.
2. Select the path “C:\ASPIA\driver\UPD72”.
   ➪ The contents of the “C:\ASPIA\driver\UPD72” subdirectory are displayed.
3. Double-click the file “printer_Sony UP-D-72XR.reg” and confirm the subsequent message windows by clicking <Yes> and <OK>.
4. Under the path “C:\Aspia\driver\UPD72\”, double-click “setup.exe” and perform the subsequent installation procedure.
   ➪ During this procedure you will requested to connect and switch on the printer.
   ➪ If the message “Printer is not found.Installation cancelled?” appears, then click <Retry>.

Printer driver settings

1. In the Windows task bar, click <Start>-<Settings>-<Printers and Faxes>.

2. Click the driver name “Sony UP-D72XR” with the right mouse button and select the <Properties> menu.
3. Select <Advanced>.
4. Click <Printing Defaults...> and deselect “Margin Print”.
   - “Margin Print = ☐
5. Click <Apply>.
6. Click <Graphics> and select:
   - “Sharpness” = “1”
   - “Dark” = “0”
   - “Gamma” = “8”
   - “Light” = “- 8” (minus 8)
7. Click <Apply> and <Save>.
   ➪ A window with the file name “Untitled.72x” appears.
8. Click <Save>.
9. Close the “Sony UP-D72XR Printing Defaults” window by clicking <OK>.
10. Under “General”, click “Print Test Page”.
    ➪ Wait until a windows test page is printed out.
11. Close the windows by clicking <OK>.
12. In the Windows task bar, click <Start>-<Shut Down...>-<Restart> and confirm with <OK> to restart the system.
    ➪ After the restart, the system is logged on as “meduser”.

Printer setup in syngo application software

Set the film size under “Filming”

1. On the right-hand monitor, select the “Filming” tab card.
   ➪ The “Filming” tab card is active on the right-hand monitor.
2. Select the “Camera” tab card on the “Filming” tab card.
3. In the “Camera” list field, select and click “Sony UPD72”.
   ➪ The “Sony UPD72” list field must be highlighted.
4. In the “Film size” list field, click “8x10”.
   ➪ The “8x10” list field must be highlighted.

Set the default printer for “Structured reporting”

1. On the “Examination” tab card, click <Options>-<Configuration> .
   ➪ The “Configuration” panel is displayed.
2. Double-click the <Structured reporting> icon (“Strukturierte Befundung”)
3. In the “Default Printer” list field, select and click “SonyUPD72” .
   ➪ The “SonyUPD72” list field must be highlighted.

4. In the “Default paper size” list field, select and click “8x10”.
   ➪ The “8x10” list field must be highlighted.

NOTE

If the “Default paper size” list field is empty, shut down the system via <Options> - <End Session> - <Shutdown System> and press the “Off” switch on the monitor trolley.

Wait until the system is switched off.

Switch the system on again and wait until it has rebooted.

Select the Filming task card on the right monitor again.

In the “Film size” list field, select “8x10” again.

Select the Examination task card again.

Open the “Configuration panel” again (<Options>- <Configuration>)

Repeat all work steps described in this section, “Set the default printer for “Structured reporting”".

5. Click <Apply> and <OK>.

Configure “Filming Layout”

1. Double-click the <Filming Layout> icon.
2. On the “Filming” tab card, enter the following parameters:
   - New filmjob by patient = ☑
   - New film sheet by (study or series) = ☐
   - New row of images by (patient, study or series) = ☐
   - Number of Copies = “1”
   - Exposure every X document = “1”
   - Filmsize = “8x10” --> click “8x10”
     ➪ The “8x10” list field must be highlighted.

NOTE

If the “Film size” list field is empty, shut down the system via <Options> - <End Session> - <Shutdown System> and press the “Off” switch on the monitor trolley.

Wait until the system is switched off.

Switch the system on again and wait until it has rebooted.

Select the Filming task card on the right monitor again.

In the “Film size” list field of the Filming task card, select “8x10” again.

Select the Examination task card again.

Open the “Configuration panel” again (<Options>- <Configuration>)

Repeat all work steps described in this section, “Configure “Filming Layout”” again.

- Segment lines = “Yes”
- Page number on print out = ☑

3. Click “Apply”.
4. On the “Series” tab card, enter the following parameters:
   - Layout divisions = “1x1”
   - Orientation = “Portrait” (“Hochformat”)
   - Image order = “Horizontal”
   - Aspect Ratio = “Keep visible part”
   - Copy Series = ☐
5. Click <Apply> and <OK>.
6. Shut down the system via <Options>-<End Session>-<Shutdown System> and press the “Off” switch on the monitor trolley.
7. Switch the system on and continue with “Printer Tests”.

Codonics Printer EP-1660L

Prerequisites

1. Check the printer for paper.
   ➪ There should be about 10 sheets of paper in the printer paper tray.
2. The printer has to be connected to the PC and switched on.

Printer setup in local service

1. In the "Service" menu, click <Configuration>.
2. In the “List of system options” window, the “Paper Printer” check box ☑ must be checked.
3. Click <Next>.

Paper Printer

1. Under the “External Devices” menu, click “Paper Printer”.
2. In “Available paper printer media formats”, mark “8x10”. All other formats must be deselected.
3. Click <Save>.

Printer settings

1. Under the “External Devices” menu, click “Printer settings”.
   ➪ Make sure that the default value “black” is selected.

PS LUT files

1. Under the “External Devices” menu, click “PS LUT files”.
2. Ensure that the “Use LUT for Postscript Printers” check box is checked.
3. Ensure that the “Use floating Zoom factors” check box is marked.
4. In the “PS LUT directory” list field, select “PrtLUT_Gamma_1_6”.
   ➪ The scroll bar slider must be moved down to make the “PrtLUT_Gamma_1_6” visible.
5. Click <Select>.
   ➪ The selected LUT appears in the “Current LUT” field.
6. Click <Save>.

NOTE	**Do not shut down the system.**

Log off as “meduser” and log on as “administrator”

1. In the "Service" menu, click <Home> -<Utilities>.
   ➪ If the window displays with “A system reboot is necessary...” click <Cancel>.
2. Under “Source”, select “System”.
3. Select “Shut down Application” and click <Go>.
   ➪ The message box appears: “Application shutdown was selected. Are you sure?”
4. Click <OK>.
   ➪ The system shuts down to Windows XP level.
   ➪ The message appears: “Shutdown of Application finished...”
5. In the Windows menu bar, click <Start>-<Shut Down...>.
6. Select “Log off meduser”.
7. Click <OK>, then **immediately** press and hold the shift key on the keyboard.
   ➪ A “Log on” window appears.
   - Under “User name”, enter “administrator”.
   - Under “Password”, enter the administrator password (see SP password list).
8. Click <OK>.
   ➪ The system is now at the Windows XP level with administrator rights.

Codonics EP1660L printer driver installation and setting

Printer driver installation

1. In the Windows task bar, right-click <Start>, select and click <Explorer>.
   ➪ Windows Explorer opens.
2. Select and open the path “C:\ASPIA\driver\EP-1660L”.
   ➪ The contents of the subdirectory “C:\ASPIA\driver\EP-1660L” are displayed.

NOTE	**The file “EP1660L_WinXP_Installation.pdf” also includes instructions for installing the Codonics printer driver. If you are updating a printer driver, please follow the instructions in this file.**

3. Double-click the file “printer_Codonics EP-1660.reg” and confirm the subsequent message windows with “Yes” and “OK”.
4. Double-click the file “ep1660L-windriver-2959.exe”.
   ➪ The “Codonics EP-Series Printing System Installer” window is displayed.
5. Click <OK>.
   ➪ The “WinZip Self Extractor-ep1660L-windriver-2959” window is displayed.
6. Click <Setup>.
   ➪ The window appears: “Welcome to the Add Printer Wizard”.

Installing the printer files

1. When the “Welcome to the Add Printer Wizard” window is displayed, click <Next>.
   ➪ The window appears: “Local or Network Printer”.
2. Select the “Local printer attached to this computer” option button if it is not already selected.
3. Deselect the “Automatically detect and install my Plug and Play printer” option button.
4. Click <Next>.
   ➪ The window appears: “Select a printer port”.
5. Select the “Use the following port:” option button and open the list field.
6. Select “EPR1:(Codonics EP-Series Port Monitor)” in the list field.
7. Click <Next>.
   ➪ The window appears: “Install Printer Software”.
8. Click <Have Disk...> .
   ➪ The window appears: “Install from Disk”.
9. Click <Browse>.
   ➪ The Explorer window is displayed.
10. Open the path “C:\CODONICS\driver\win2k_xp”.
    ➪ The contents of the selected path are displayed.
11. Select the file “Codonics-EP.INF” and click <Open>.
    ➪ The “Install From Disk” window shows the selected path.
12. Click <OK>.
    ➪ The message “This driver is not digitally signed!” is displayed.
13. Click <Next>.
    ➪ The “Name your Printer” window is displayed.
14. Click <Next> to confirm the displayed printer name “Codonics EP-1660”.
    ➪ The software installation continues.
    ➪ The “Print Test Page” window is displayed.
15. Select the “No” option button.
16. Click <Next>.
    ➪ The “Completing the Add Printer Wizard” window is displayed.
17. Click <Finish> to close the “Add Printer Wizard”
    ➪ Close any message windows that may still be open.

Printer driver settings

1. Click <Start> in the windows task bar.
2. Select <Settings>.
3. Select and click <Printers and Faxes>.
   ➪ The <Printers and Faxes> window is displayed.

4. Select the “Codonics EP-1660” icon and click the right-hand mouse button.
   ➪ A small menu window is displayed next to the mouse cursor.
5. Select and click the <Properties> menu.
   ➪ The “Codonics EP-1660L Properties” window is displayed.
6. Select the <Advanced> tab card in the “Codonics EP-1660L Properties” window.
7. Click <Printing Defaults...>.
   ➪ The “Codonics EP-1660L Printing Defaults” window is displayed.
8. In the “Layout” tab card, click <Advanced>.
   ➪ The “Codonics EP-1660L Advanced Options” window is displayed.
9. In the “Paper size” list field, select and click “8x10”.
   ➪ The “8x10” list field must be highlighted.
10. Click <OK> to close the “Codonics EP-1660L Advanced” window.
11. Click <OK> to close the “Codonics EP-1660L Printing Defaults” window.
12. Select the “Device settings” tab card in the “Codonics EP-1660L Properties” window.
13. In the “Form To Tray Assignment” - “Only One” list field, select and click “8x10”.
    ➪ The “8x10” list field must be highlighted.

NOTE	**Do not select “Film (8x10 in.)” in the “Form To Tray Assignment Only One" list field.**

14. Click <Apply>.
15. Under “General”, click “Print Test Page”.
    ➪ Wait until a windows test page is printed out.
16. Click <OK> to close the “Codonics EP-1660L Properties” window.
17. In the Windows task bar, click <Start>-<Shut Down...>-<Restart> and confirm with <OK> to restart the system.
    ➪ After the restart, the system is logged on as “meduser”.

Printer setup in syngo application software

Set the film size under “Filming”

1. On the right-hand monitor, select the “Filming” tab card.
   ➪ The “Filming” tab card is active on the right-hand monitor.
2. Select the “Camera” menu tab card on the “Filming” tab card.
3. In the “Camera” list field, select “Codonics EP-1660L”.
4. In the “Film size” list field, select and click “8x10”.
   ➪ The “8x10” list field must be highlighted.

Set the film size under “Structured reporting”

1. On the “Examination” tab card, click <Options>-<Configuration> .
   ➪ The “Configuration” panel is displayed.

2. Double-click the <Structured reporting> icon (("Strukturierte Befundung")).
3. In the "Default Printer" list field, select and click "Codonics EP-1660L".
   ➪ The "Codonics EP-1660L" list field must be highlighted.
4. In the "Default paper size" list field, select and click "8x10".
   ➪ The "8x10" list field must be highlighted.

NOTE

If the "Default paper size" list field is empty, shut down the system via <Options> - <End Session> - <Shutdown System> and press the "Off" switch on the monitor trolley.

Wait until the system is switched off.

Switch the system on again and wait until it has rebooted.

Select the Filming task card on the right monitor again.

In the "Film size" list field, select "8x10" again.

Select the Examination task card again.

Open the "Configuration panel" again (<Options>- <Configuration>)

Repeat all work steps described in this section, "Set the default printer for "Structured reporting"".

5. Click <Apply> and <OK>.

Configure "Filming Layout"

1. Double click the <Filming Layout> icon.
2. On the "Filming" tab card, enter the following parameters:
   - New filmjob by patient = ☑
   - New film sheet by (study or series) = ☐
   - New row of images by (patient, study or series) = ☐
   - Number of Copies = "1"
   - Exposure every X document = "1"
   - Film size = "8x10" --> click "8x10"
     ➪ The "8x10" list field must be highlighted.

NOTE

If the "Film size" list field is empty, shut down the system via <Options> - <End Session> - <Shutdown System> and press the "Off" switch on the monitor trolley.

Wait until the system is switched off.

Switch the system on again and wait until it has rebooted.

Select the Filming task card on the right monitor again.

In the "Film size" list field of the Filming task card, select "8x10" again.

Select the Examination task card again.

Open the "Configuration panel" again (<Options>- <Configuration>)

Repeat all work steps described in this section, "Configure "Filming Layout"".

- Segment lines = "Yes"
- Page number on print out = ☑

3. Click "Apply".
4. On the "Series" tab card, enter the following parameters:
   - Layout divisions = "1x1"
   - Orientation = "Portrait" ("Hochformat")
   - Image order = "Horizontal"
   - Aspect Ratio = "Keep visible part"
   - Copy Series = ☐
5. Click <Apply> and <OK>.
6. Shut down the system via <Options>-<End Session>-<Shutdown System>.
7. Switch the system on and continue with "Printer Tests".

Printer tests

Testing the printer function

NOTE	**The system is still running.** **If not, switch the system on and wait for it to boot.**

1. Open local service and enter the password.
   ➪ The “service patient” and the corresponding test images are displayed in the patient browser only if local service is open and the user is logged on.
2. Open the patient browser.
3. Open the “Service patient” folder.
4. Open the SMPTE test image.
5. Send the SMPTE test image to the “Filming” task card.

NOTE	**An image is first sent to the Filming task card by default and must then be printed in the Filming task card.** **If the default programming was changed and the printout is being sent directly to the printer, press the Print button on the keyboard of the monitor trolley. The image is then sent directly to the local printer and the printer starts printing the image.**

6. Select the Filming task card on the right monitor.
7. Start printing on the local printer in the Filming task card.
   ➪ The printer should soon start printing the test image.

Testing the printer image quality

NOTE	**Use the previously printed test image to evaluate the image quality.**

1. Evaluate the image quality of the printed SMPTE test image.
   ➪ The minimum contrast fields 0%/5% and 95%/100% in the SMPTE test image should be visible.
   ➪ The image impression of the SMPTE test image, displayed on the monitor, should be approximately the same as the test image impression of the printed SMPTE test image.

Image quality of the printout

- If the image quality of the printout is not acceptable, another printer LUT can be programmed as the default LUT.

- Perform the programming in accordance with the “Printer settings in the local service” section of the “Local printer installation” chapter of these instructions.
  - ➪ Use the LUT‘s “PRT_Gamma_x_y”
  - ➪ After an LUT change, a restart of the system is not necessary. The new LUT is active immediately after the change.

Density adjustment of the Codonics printer

NOTE

If the minimum contrast fields 0%/5% and 95%/100% can not reached by changing the printer LUT, a "Max Density" adjustment of the Codonics printer is necessary.

Deactivate Printer LUT

1. In the local service menu, click <Configuration>.
2. Under "External Devices", click <PS LUT files".
3. Uncheck the "Use LUT for Postscript Printers" check box.
4. Click <Save> and close the "Service" menu.

NOTE

The following density adjustments are carried out on the Codonics printer keypad.

Codonics DENSITY MAX adjustment

1. Press "ONLINE"
   ➪ "SETUP: SYS INFO" appears on the display.
2. Press "CANCEL".
   ➪ "IMAGE" appears on the display.
3. Press "ONLINE" to select "IMAGE".
   ➪ "GAMMA" appears on the display.
4. Press "CANCEL" twice.
   ➪ "IMAGE: PAPER DMAX" appears on the display.
5. Press "ONLINE" to select "IMAGE: PAPER DMAX".
   ➪ DMAX: XX" appears on the display (XX = number).
6. Adjust the brightness by pressing the "CANCEL" or "STATUS" button.
   ➪ "CANCEL" = down (brighter image)
   ➪ "STATUS" = up (darker image)
7. Press "ONLINE" to apply the new value.
   ➪ " * " appears after the new number on the display.
8. Press "ONLINE" .
   ➪ "IMAGE Paper DMAX" appears on the display.
9. Press "CANCEL" twice.
   ➪ "EXIT" appears on the display.
10. Press "ONLINE"
    ➪ Messages appear on the display: "UPDATING..." and " READY"
11. Evaluate the image quality of the printed SMPTE test image.

NOTE

If the medical images must be fine-tuned after adjustment, please use the LUT‘s “PRT_Gamma_x_y”.

Backup of the parameter changes

NOTE **After the parameters have been changed, a backup must be performed.**

NOTE **The monitor trolley and the basic unit must be connected. (Plug X10 is connected to socket X10.)**

1. Switch on the system and wait until it has booted.
2. Open the local service.
3. Insert a new and empty CD-R into the CD drive.
4. Select “Command” and “Backup”.
5. As the backup drive, select “(R) CD-R” in the “Drives” list field.
6. Perform a backup of the following packages:
   - ➪ SW-Settings 02
   - ➪ ASPIA Settings
   - ➪ 3 D settings (only ARCADIS Orbic)
   - ➪ Exam sets.
   - ➪ Security settings (Option)
   - ➪ Main system
7. After the backup, remove the CD-ROM from the CD drive.
8. On the new backup CD-R, write the software version VB13C, the system type, the system serial no., and the current date and time.

Adjusting the EIZO color monitor (only if present)

NOTE

To ensure good image quality on the EIZO color monitors, they need to be adjusted using the EIZO utility CD provided. This CD was packed together with the original EIZO package and should be located in the monitor trolley.

EIZO control keys

The EIZO color monitor has 8 control keys, located at the front.

The power on LED is located to the right of the control keys.

Signal 1- 2	Auto	Enter	⇐	⇓	⇑	⇒	ON/OFF	⊗ Power on LED

Signal 1-2:

- ➪ Input selection. (Not used for the adjustment)

Auto:

- ➪ Press twice to start the “Auto Adjustment” routine of the monitor. This deletes previously stored adjustments.

Enter:

The “Enter” key has similar functions to PC keyboards:

- ➪ Opening the Screen Manager
- ➪ Opening sub-menus (if present)
- ➪ Starting adjustment routines
- ➪ Storing adjustments

Cursor keys ⇐ (=left) ⇓ (=down) ⇑ (=up) ⇒ (=right):

- ➪ Selecting menus or sub-menus
- ➪ Changing values
- ➪ Adjusting image positions, etc.

On/OFF:

- ➪ Monitor power on or off.

Power on LED:

- ➪ Dark: Monitor switched off, Lit: Monitor switched on

Unlocking the EIZO Screen Manager (OSD adjustment menu)

1. Switch off the EIZO monitor by pressing the ON/OFF key on the monitor and wait until the power on LED is dark.

2. Press and hold the “AUTO” key and subsequently press the “ON/OFF” key.
   ➪ The monitor switches on and the keys are unlocked.

Starting the LCD adjustment program

1. Insert the “EIZO LCD Utility Disk” into the CD drive of the imaging system PC.
2. Open Service and click the <Utilities> menu button.
3. Under “Source”, select “Escape to OS”.
4. Under “Parameters”, enter “explorer” and click <Go>.
   ➪ Windows Explorer opens
5. Select the drive “CD-RW Drive (R:)
6. Open the folder “Lcdadj”
   ➪ The file “Ldcadj.exe” is stored in the folder.
7. Double-click “Lcdadj.exe”.
   ➪ The EIZO utility window appears on the left monitor.
   ➪ Both monitors show a grey test image.
   ➪ The “Auto Adjustment” window is displayed on the left monitor.
   ➪ Move the “Auto Adjustment” program window to the screen of the monitor that needs to be adjusted.

NOTE

After "Lcdadj.exe” starts, move the program window to the screen of the monitor that needs to be adjusted.

This ensures that “Adjust the Range automatically” works correctly.

Opening the EIZO Screen Manager (OSD adjustment menu)

NOTE

Timeout values of the EIZO Screen Manager:

Opening the main menu with the “Auto” key: ~ 4 seconds. See description below in this section.

During the adjustment: ~ 45 seconds. If the adjustment is not continued after ~45 seconds, the Screen Manager (OSD menu) disappears. Adjustments that were not finished must be repeated.

The Screen Manager can be opened by pressing the “Enter” key on the monitor.

NOTE

Acoustic signals during adjustment procedure:

Failure (e.g. wrong test image during adjustment, etc.):

- Short, interrupted beeps (several times).

Adjustment OK / storing of the adjustment OK:

- 1 long beep (~ 1 second)

1. Press the “Enter” key.

   ➪ The message “Your settings will be lost, if you press again now” is displayed.

NOTE

If the “Auto” key is not pressed again within approx. 4 seconds, the message disappears automatically.

If you need to continue with the adjustment, press the “Auto” key again twice.

2. Press the “Auto” key again within < 4 seconds after the message “Your settings will be lost, if you press again now” was displayed.

   ➪ The Screen Manager main menu is displayed on the monitor.

NOTE

If the “Auto” key was pressed again in < 4 seconds, the previously stored adjustment is deleted and the adjustment needs to be performed as described below.

Adjustment procedure

NOTE

To adjust the EIZO monitors, the LCD adjustment program and the Screen Manager (OSD adjustment menu) must be used simultaneously because for each adjustment step, the LCD adjustment program generates the necessary test image on the monitors.

Auto Adjustment

After starting the LCD adjustment (see section Starting the LCD adjustment program), the “Auto Adjustment” window is displayed:

Auto Adjustment			
1. Push the “Auto” button and wait until the screen appears.			
	<Previous	Next>	Close

1. Press the “Auto” key on the monitor twice in < 4 seconds.
   - ➪ After the “Auto” key was pressed the first time, the message “Your settings will be lost, if you press again now” is displayed.
   - ➪ After the “Auto” key was pressed the second time, the “Auto Adjustment” procedure started. After a beep, the “Auto Adjustment” procedure has finished successfully.
2. Click the “Next>” button in the Auto Adjustment window.
   - ➪ The “Clock Adjustment” window is displayed.

Clock Adjustment

The “Clock Adjustment” window is displayed:

Clock Adjustment			
1. Press the “Enter” button to display the Screen Manager 2. Select the “Screen” icon and press “Enter”. 3. Select the “Clock” icon and press “Enter”. 4. Adjust any vertical stripes by pressing the “L” and “R” control buttons. 5. Press “Enter” to complete the adjustment.			
	<Previous	Next>	Close

1. Open the Screen Manager by pressing the “Enter” key.
   - ➪ The Screen Manager Main menu is visible on the monitor.
2. Using the “left” and “right” cursor keys, select the “Screen” icon .
   - ➪ The text <Screen> is displayed in the main menu.
3. Open the <Screen> sub-menu by pressing the “Enter” key.
   - ➪ The “Screen” sub-menu is displayed.
4. Using the “left” and “right” cursor keys, select the “Clock” icon .
   - ➪ The text <Clock> is displayed in the Screen Manager sub-menu.
5. Press the “Enter” key.
   - ➪ The automatic clock adjustment is started. The result should be a grey image without any vertical stripes.

NOTE

Normally the automatic adjustment results in a correct clock adjustment.

If there are still vertical stripes visible, try to eliminate them by pressing the “left” or “right” key as often as needed in the possible range.

6. After the automatic clock adjustment or manual correction, press the “Enter” key to store the adjusted value.
   - ➪ After successful storage, a beep of ~ 1 second sounds.

7. Click the “Next>” button in the “Clock Adjustment” window.
   ➪ The “Phase Adjustment” window is displayed.

Phase Adjustment

The “Phase Adjustment” window is displayed:

Phase Adjustment			
1. Select the “Phase” icon and press “Enter”. 2. Adjust any horizontal bars by pressing the “L” or “R” control key. 3. Press “Enter” to complete the adjustment.			
	<Previous	Next>	Close

1. The Screen manager “Screen” sub-menu is still open.
2. Using the “left” and “right” cursor keys, select the “Phase” icon .
   ➪ The text <Phase> is displayed in the Screen Manager sub-menu.
3. Press the “Enter” key.
   ➪ The automatic phase adjustment is started. The result should be a grey image without any horizontal bars.

NOTE

Normally the automatic adjustment results in a correct phase adjustment.

If there are still horizontal bars visible, try to eliminate them by pressing the “left” or “right” key as often as needed in the possible range.

4. After the automatic phase adjustment or manual correction, press the “Enter” key to store the adjusted value.
   ➪ After successful storage, a beep of ~ 1 second sounds.
5. Click the “Next>” button in the “Phase Adjustment” window.
   ➪ The “Phase Adjustment” window is displayed.

Position Adjustment

NOTE

When “Position Adjustment” is selected, the test image displayed on both monitors changes.

At the edges of the test image, dotted lines are visible.

With this adjustment, the upper and left dotted lines should be exactly positioned at the beginning of the image on the monitor.

The “Position Adjustment” window is displayed:

Position Adjustment			
1. Select the “Position” icon and press “Enter”. 2. Using the control buttons and screen markers, adjust the upper left corner of the image to fit the screen. 3. Press “Enter” to complete the adjustment.			
	<Previous	Next>	Close

1. The Screen manager “Screen” sub-menu is still open.
2. Using the “left” and “right” cursor keys, select the “Position” icon .
   ➪ The text <Position> is displayed in the Screen Manager sub-menu.
3. Press the “Enter” key.
   ➪ The automatic position adjustment is started. The result should be that the dotted lines are exactly positioned at the upper and left edge of the monitor image.

NOTE

Normally the automatic adjustment results in a correct position adjustment.

If the dotted lines are not positioned exactly at the upper and left edge of the monitor image, adjust the image position by pressing the “left” “down”, “up” or “right” keys.

4. After the automatic position adjustment or manual correction, press the “Enter” key to store the adjusted values.
   ➪ After successful storage, a beep of ~ 1 second sounds.
5. Click the “Next>” button in the “Position Adjustment” window.
   ➪ The “Confirm the Resolution” window is displayed.

Confirm the Resolution

NOTE

When “Confirm the Resolution” is selected, the test image displayed on both monitors changes.

In the upper area of the monitors, the actual resolution is displayed as text. (1280x1024)

With this adjustment, the monitor resolution is adjusted to the Video output resolution of the XGA graphic card.

The “Confirm the Resolution” window is displayed:

Confirm the resolution			
1. Select the “Resolution” icon and press “Enter”. 2. Check the resolution at the top of the screen and that of the Screen Manager. 3. If the values are different, correct the Screen Manager Resolution settings using the control buttons. 4. Press “Enter” to complete the adjustment.			
	<Previous	Next>	Close

1. The Screen manager “Screen” sub-menu is still open.
2. Using the “left” and “right” cursor keys, select the “Resolution” icon .
   ➪ The text <Resolution> is displayed in the Screen Manager sub-menu.
3. Press the “Enter” key.
   ➪ The automatic resolution adjustment is started.
   ➪ As a result, both resolutions are displayed:
   ➪ XGA resolution at the top of the monitor screen.
   ➪ Monitor resolution as text in the Screen Manager window.

NOTE

Normally the automatic adjustment results in a correct resolution adjustment.

The horizontal resolution of the monitor can be changed with the “left” and “right” cursor keys.

The vertical resolution of the monitor can be changed with the “up” and “down” cursor keys.

4. After the automatic position adjustment or manual correction, press the “Enter” key to store the adjusted values.
   ➪ After successful storage, a beep of ~ 1 second sounds.
5. Click the “Next>” button in the “Confirm the Resolution” window.
   ➪ The “Adjust the Range automatically” window is displayed.

Adjust the Range automatically

NOTE

When “Adjust the Range automatically” is selected, the test image displayed at both monitors changes to a grey-step test image.

The adjustment calibrates the color balance of the monitor display.

The adjustment produces a good result only if the conditions for the adjustment are maintained.

The “Adjust the Range automatically” window is displayed:

Adjust the Range automatically			
Please read all procedures of this dialog box beforehand. 1. Select the “Range Adjustment” icon and press “Enter”. 2. Close other windows except for this dialog box. 3. Click the screen to hide this dialog box and mouse pointer. 4. Press the “Auto” button while displaying the adjustment menu 5. Click the screen again to show the dialog box and mouse pointer. 6. Press “Enter” to complete the adjustment. 7. Exit the Screen Manager			
	<Previous	Next>	Close

1. The Screen manager “Screen” sub-menu is still open.
2. Using the “left” and “right” cursor keys, select the “Range Adjustment” icon .
   ➪ The text <Range Adjustment> is displayed in the Screen Manager sub-menu.
3. Press the “Enter” key.
   ➪ The Range adjustment routine is selected, but is still not started.
4. Set the mouse cursor outside of the “Adjust the Range automatically” window and click one time.
   ➪ The “Adjust the Range automatically” window and the mouse pointer are hidden and no longer visible.
5. Press the “Auto” key.
   ➪ The Range adjustment routine starts.
   ➪ After the automatic range adjustment, a beep sounds for approx. 1 second.

NOTE

If you hear multiple, short beeps, the adjustment was not successful.

The adjustment conditions might not have been met:

1. The “Adjust the range automatically” window must be open. When this window is opened, the correct test image is displayed (multiple grey steps).

2. The “Adjust the range automatically” window must be placed on the monitor screen that has to be adjusted. If needed, use the mouse to move the window to the appropriate monitor screen.

2. Select the “Range Adjustment” sub-menu and press the “Enter” key to start.

3. The “Adjust the Range automatically” window and mouse pointer must be hidden prior to starting the adjustment. To do so, click once outside the “Adjust the range automatically” window area.

4. The Range adjustment must be started with the “Auto” key.

6. After the automatic range adjustment, click the mouse button.
   ➪ The “Adjust the Range automatically” window and the mouse pointer appear.
7. Press the “Enter” key.
   ➪ The adjusted values will be stored.
8. Close the “Adjust the Range automatically” window by clicking the “Close” button.
   ➪ The program “Lcdadj.exe” will be terminated (closed).
9. Close the Screen Manager “Screen” sub-menu of the adjusted monitor. To do so, select the “Return” icon of the sub-menu and press the “Enter” key.
   ➪ The sub-menu of the Screen Manager disappears and the main menu is displayed.
10. Close the Screen Manager main menu of the adjusted monitor. To do so, select the “Exit” icon of the main menu and press the “Enter” key .
    ➪ The main menu of the Screen Manager disappears and the Screen Manager is terminated (closed).

Adjusting the second EIZO color monitor

1. Repeat the adjustment at the second monitor as described in the previous sections.

NOTE

After "Lcdadj.exe” starts, move the program window to the screen of the monitor that needs to be adjusted.

This ensures that “Adjust the Range automatically” works correctly.

Locking the EIZO Screen Manager (OSD adjustment menu)

1. Switch off the EIZO monitor by pressing the ON/OFF key on the monitor and wait until the power on LED is dark.
2. Press and hold the “AUTO” key and subsequently press the “ON/OFF” key.
   ➪ The monitor switches on and the keys are locked.

Change power label from the monitor trolley

NOTE

Some of the current values printed on the old power label are not correct. Therefore, the power label glued to the rear cover of the monitor trolley must be replaced with a new power label indicating the proper current values.

Fig. 12: Label

1. Read the marked line voltage / line frequency on the existing power label.
2. Remove the power label (Fig. 12 / p. 69) from the rear cover of the monitor trolley.
3. Apply the new power label from the update kit to the rear cover of the monitor trolley.
4. Mark the previously read line voltage / line frequency on the new power label.

Information about new parameters

There are 2 new parameters for creating exam sets:

- “Black Offset Native”
  - ➪ Default value = 150
- “Black Offset Native Metal”
  - ➪ Default value = 250

NOTE	**The “Black Offset Native Metal” parameter is active on ARCADIS Avantic systems only if the Metal key was pressed.**

Editing the “Black Offset Native” parameter

The parameter can be edited in each existing exam set as well as in new ones.

- In the menu bar, select “Options” - “Configuration” - “ Exam set Configuration”.
- Select an exam set and click the “Edit” button.
- Select the “Common” tab card.
  - ➪ The “Black Offset Native” parameter value can be modified and stored with the selected exam set.

How to use the black offset adjustment of ASPIA VB13C software

The black offset adjustment allows parts of the image in the lower gray scale range to be cut off. This is appropriate if there is no useful information in this gray scale range.

The standard adjustment for the “Black Offset Native” parameter is 150, as this simply cuts off the noise floor of the camera.

For the Metal key of the ARCADIS Avantic, the standard adjustment for “Black Offset Native Metal” is 250, which is combined with other regulator adjustments.

There is no Metal key on Arcadis Varic and Orbic, hence no adjustment.

If you want to create an exam set for use with metal implants on ARCADIS Varic and Orbic, you can adjust a black offset value between approx. 250 and 350. The optimal value depends on how the current I.I. in the system behaves, i.e., what changes from I.I. to I.I. (like vignetting etc.). User preference may also be taken into account. A value of 300 is a good start.

As a result of this adjustment, the “black” in the image becomes “more black”. For this reason, the image gets more dynamic range if you have metal implants or something similar in the centered measurement. If you do not have metal implants in the measurement, the image at the sides can get very black, especially if the kV are below approx. 70 kV to 80 kV.

The adjustment of the black offset may also increase contrast capability with high kV images, where there is no black in the image at all. However, you may need an offset value between 400 to 500. This also makes the image noisier.

Currently we recommend you do not set the black offset value higher than 500.

The images would simply be black above that value.

Your feedback

We welcome your feedback.

Please send to:

klaus-peter.kreuzer@siemens.com

Final work steps

Updating the documentation

- The software update kit includes the Operator Manual in the country-specific language. Remove the old chapters of the Operator Manual from the binder and file the new chapters in the binder.
- Update the system documentation in the system binder.

  Fill out, and if needed, make a copy of the attached "Completion Protocol" and file it in the corresponding binder.
- The update must be reported by authorized personnel, either via an intranet application or by automated data transfer (only for countries connected via update handling interface).
- Replace all CDs from version VB11A with the new CDs and DVD from Version VB13C.

System checks

- Close all covers.
- Perform a protective conductor resistance test in accordance to the ARTD-002.731.17...

  ➪ The protective conductor resistance may not exceed 0.2 Ohms.

NOTE

Follow the guidelines for the protective conductor resistance test in the Safety section of these instructions.

- Release fluoro and perform an acquisition at the highest possible frame rate.

Customer information

- Turn over the Operator Manual and the Restriction List to the customer and remove the old Operator Manual and Restriction List from the binder.
- USA: Inform the customer that the Customer Safety Advisory “Re: Error using the Correct and Rearrange function with the ARCADIS Orbic and Varic” from December 12, 2005, our reference 05-03010-SP-0361-R-S, sent to the customer with the Update Instructions SP030/05/S or included in the delivered documentation of the system, is no longer applicable.

  ➪ The described software error is eliminated after the installation of the new software version VB13C. Therefore, the customer advisory letter is irrelevant.

Changes to previous version

n.a.

The update with the number **SP003/06/P** has been completed.

System material no.: .....

System serial no.: .....

Customer: ..... Site: .....

Customer No.: .....

Name (CSE): ..... Telephone: .....

Country: ..... Location: .....

Date: ..... Signature: .....

Remarks: .....

.....

NOTE

After completing the update, make a copy of this page, fill it out, and file it in the corresponding binder.